RESUSCITATION COUNCIL OF SOUTHERN AFRICA

2025

Tachycardia Management Algorithm

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AIRWAY

Open, maintain and protect as necessary

BREATHING

Administer oxygen if required. Target saturation 94 - 98%
Ventilate if required

CIRCULATION

Assess pulse, blood pressure and perfusion
Attach ECG monitor, pulse oximeter and vital signs monitor if available

DRIP

Establish IV access, assess blood glucose

ECG RHYTHM

Attach and print ECG to confirm rhythm
(12-lead ECG if possible)
Identify and treat physiological causes

SIGNS OF INSTABILITY

Hypotension
Signs of shock
Acute heart failure
Acutely altered mental state
Ischaemic chest discomfort

TACHYCARDIA

Heart rate > 150/min* with absent P waves

UNSTABLE — **STABLE**

SYNCHRONISED CARDIOVERSION

(Consider analgesia and sedation)
Start with **100J synchronised**,
and increase stepwise if unsuccessful
(monophasic or biphasic)

Paediatric start 0.5-1J/kg, then 2J/kg
(max 4J/kg)

WIDE COMPLEX TACHYCARDIA

(Ventricular tachycardia)
Generally HR > 150/min with QRS > 0.12 sec

Seek expert advice

AMIODARONE

150mg in 5% D/W over 10 minutes
(15mg/min) then 1mg/min infusion

Consider (if ***Torsades de Pointes***):
Defibrillation (asynchronous)
Magnesium 2g IV over 10 min
Correct electrolytes
Consider toxins/drugs

NARROW COMPLEX TACHYCARDIA

(Supraventricular tachycardia)
HR > 150/minute with QRS < 0.12 sec

VAGAL STIMULATION

(NOT if varying R-R intervals/Atrial fib)
Preferable: **Modified Valsalva**

Alternatives
Valsalva, ice water to face,
coughing, breath-holding

ADENOSINE

(NOT if varying R-R interval/Atrial fib)
6mg IV rapidly,
then 12mg IV prn after 1-2 min

IRREGULAR RHYTHMS

With expert guidance:
Beta Blockers or Ca channel blockers
Amiodarone
150mg in 5% D/W over 10 minutes IV
(15mg/min) then 1mg/min infusion

PHYSIOLOGICAL CAUSES

Sepsis / Fever
Pain / anxiety
Hypovolaemia
Anaemia
Stimulants
Hyperthyroidism

***Paediatric Tachycardia Rates**
Narrow complex >180 child (QRS < 0.08 sec)
> 220 infant
Wide complex > 200 (QRS > 0.08 sec)

Paediatric Drug Doses
Adenosine 0.1mg/kg IV rapidly followed by 0.2mg/kg
Amiodarone 5mg/kg in 5% D/W over 20-60 min in ICU
Magnesium 30-50mg/kg slow IV
(max doses are adult doses)

SPECIALIST MEDICAL ADVICE SHOULD BE SOUGHT WHENEVER POSSIBLE

www.resus.co.za